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10/664,012	09/15/2003	Jiann-Chen Chen	81439/LPK	2748

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT PAPER NUMBER

3726

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/664,012	Applicant(s) CHEN ET AL.	
	Examiner Marc Jimenez	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-14 and 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,696,158) in view of Heeks et al. (5,736,250) and Chen et al. (5,716,714).

Chen et al. ('158) teach a high temperature sleeve **16** having an inner diameter adapted to closely fit around an outer diameter of a mandrel in an electrophotographic machine fuser section, a base cushion elastomer (col. 8, lines 62-67) layer **14** around an outside of the sleeve **16**, a primer (col. 9, line 58-60) positioned on the outside of the sleeve **16** to provide bonding between the base cushion **14** and the sleeve **16**, and a layer **12** of cured thermoplastic polymer selected from the group consisting of thermoplastic polyfluorocarbon polymers (col. 5, lines 50-51) and thermoplastic polyfluorocarbon random copolymers around the outside of the base cushion **14**.

Chen et al. ('158) teach the invention cited with the exception of the sleeve being made of nickel and the primer consisting essentially of a saline coupling agent containing epoxies.

Heeks et al. teach a fuser member with a sleeve **4** made of nickel (col. 5, lines 57-59) mounted on a mandrel **6**.

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Chen et al. ('714) teach a fuser member with a primer consisting essentially of a saline coupling agent containing epoxies (col. 4, lines 21-37).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have replaced the "stainless steel, steel, aluminum etc." sleeve (col. 5, lines 14-15) of Chen et al. ('158) with a sleeve made of nickel, in light of the teachings of Heeks et al., in order to provide a sleeve material that can withstand high temperatures and is suitably rigid. Furthermore, it is noted that Heeks et al. suggest that the cylindrical core could be made of any suitable metal such as those described in col. 5, lines 57-59. Therefore, because the types of materials Chen et al. describes in col. 5, lines 14-15 and the materials described by Heeks et al. at col. 5, lines 57-59 were art-recognized equivalents at the time of the invention was made, one of ordinary skill in the art would have found it obvious to substitute the sleeve materials described by Chen et al. for the nickel material described by Heeks et al.

Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. ('158) with a primer consisting essentially of a saline coupling agent containing epoxies, in light of the teachings of Chen et al. ('714), in order to provide a primer that can easily bond with metal such as nickel described in col. 3, lines 23-24.

Regarding claims 2 and 4, official notice is taken that it is well known in the art to have used a mandrel made of nickel, in order to provide a material that can withstand high temperatures and is suitably rigid. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the

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basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Regarding claims 3 and 17, it is noted that Chen ('714) teaches that the thickness of the nickel sleeve is from about 0.001 to about 0.05 inches (col. 3, lines 30-32). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. ('158)/Heeks et al. with the sleeve having a thickness from about 0.001 to about 0.05 inches, in light of the teachings of Chen ('714), in order to a nickel sleeve that has a suitable core stiffness (as suggested by Chen ('714) at col. 3, lines 27-28).

Regarding claim 5, official notice is taken that it is well known in the art to provide a tolerance of about 0.001 to about 0.002 inches, in order to provide a close fit between the sleeve and mandrel.

Regarding claims 6-8, Chen ('158) teaches using silicone rubber as the base cushion elastomer layer (col. 8, lines 66-67) and polydimethylsiloxane (col. 8, lines 64-65). Note the fillers in col. 9, lines 1-40.

Regarding claims 9-13, official notice is taken that it is well known in the art to have used the claimed primer materials, in order to provide a suitable primer that provides a secure bond between the nickel sleeve and the base cushion layer. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design

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choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Regarding claim 14, Chen et al. ('158) teach the materials claimed in col. 7, lines 6-20.

Regarding claim 16, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

Regarding claim 18, Chen et al. ('158) teach that the base cushion layer has a thickness of about 0.6 to about 50mm (col. 8, lines 58-61).

3. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,696,158) in view of Heeks et al. (5,736,250) and Chen et al. (5,716,714) as applied to claim 1 above, and further in view of Chen et al. (6,355,352).

Chen et al. (6,696,158)/Heeks et al. (5,736,250)/Chen et al. (5,716,714) teach the invention cited with the exception of having antimony-doped tin oxide particles.

Chen et al. (6,355,352) teach using antimony-doped tin oxide particles (col. 5, lines 3-5).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. (6,696,158)/Heeks et al. (5,736,250)/Chen

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et al. (5,716,714) with antimony-doped tin oxide particles, in light of the teachings of Chen et al. (6,355,352), in order to reduce the temperatures required for curing as suggested by Chen et al. at col. 5, lines 4-5.

Response to Arguments

4. Applicant's arguments filed 2/7/05 have been fully considered but they are not persuasive.

5. Applicant argues that the element labeled 4 in Heeks et al. cannot be considered a "sleeve" because it is described as being "a hollow cylinder or core" in Heeks et al. It is noted however, that a "sleeve" is a hollow cylinder. Therefore, the hollow cylinder or core of Heeks et al. is considered a "sleeve". Furthermore, in the art of rolls, a cylinder is a sleeve as described by Songer (US 5,577,443 cited in the attached PTO-892) who states in col. 2, line 29 "nickel cylinder or sleeve 11" to describe a hollow cylinder 11.

6. Applicant argues that the instant invention is directed to a nickel sleeve that is a customer-replaceable component, mounted on a mandrel. However, the claims do not specifically recite that the replaceable fuser roller member has a mandrel, only that the sleeve is "adapted to" be fit around a mandrel. The sleeve of Chen et al. ('158) is clearly adapted to fit around a mandrel.

7. Applicant argues that Chen et al. ('714) is directed to a "core" which cannot be considered a "sleeve". However, the "core" of Chen et al. is clearly a cylindrical shaped object because it has an inner diameter and an outer diameter (col. 3, lines 27-32). Therefore, the core of Chen et al. is considered a sleeve.

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8. Applicant argues that the use of official notice with regard to claim 5 was inappropriate (page 3, lines 5-21). However, the official notice statement in the last office action specifically states that the use of the claimed thickness would provide “a close fit between the sleeve and the mandrel”. Therefore, in accordance with MPEP 2144.03A, the desirability to use the claimed ranges have been shown, namely, providing a close fit. The official notice statement meets the requirement of MPEP 2144.03A which states that “it might not be unreasonable to take official notice of the fact that it is desirable to make something faster, cheaper, better, or stronger without the specific support of documentary evidence.”. The official notice statement in the last office action is taken to be admitted prior art because applicant did not adequately traverse the official notice statement. To adequately traverse the official notice statement, applicant must specifically point out the supposed errors in the examiner’s action, which would include stating why the noticed fact (that it was well known to use a tolerance of from 0.001 to about 0.002 inches) is not considered to be common knowledge or well-known in the art. Applicant has not shown that using a tolerance of from about 0.001 to about 0.002 inches is not well known.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Interviews After Final

10. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.


Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number (571) 272-4530. The examiner can normally be reached on Monday-Friday between 5:30 a.m.-2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 273-4530. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marc Jimenez
Primary Examiner
Art Unit 3726

MJ

March 10, 2005